

**Notice of Allowability**

Application No.

10/791,022

Applicant(s)

YU, TA-LEE

Examiner

Art Unit

Johannes P. Mondt

3663

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/18/06 Amendment under 37 C.F.R. 1.111.
2. ☒ The allowed claim(s) is/are 32,33,35,37,38, 47 and 49-54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

Examiner: Johannes Mondt  
*[Signature]* (A43663)

## **DETAILED ACTION**

### ***Response to Amendment***

Amendment filed 10/18/06 forms the basis for this office action. In said Amendment applicant substantially amended all claims at least through substantial amendment of independent claims 32 and 49.

The objection to the Drawings has been overcome by said amendment as there is no reference to said multiple bipolar transistors: item 3 of objection to claims also has been overcome by the same amendment, see lines 20-21 of claim 32.

The objections ad section 1 and 2 under "Claim Objections" have been overcome by amendment (see amendments to claim 32).

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with J. Powers (Reg. No.: 47,006) on January 3, 2006.

#### **BEGIN PROPOSED EXAMINER'S AMENDMENT**

1. In Claim 32, line 23, the wording "to N horizontal stripe conductor elements" has been replaced by "with N horizontal stripe conductor elements".

2. In Claim 32, lines 29-30, the wording "conductor elements so that said horizontal stripe conductor elements are electrically connected to each other" has been replaced by "conductor elements".
3. In Claim 32, lines 34-35, the wording "on laterally opposite ends" has been replaced by: "at laterally opposite ends".
4. In Claim 33, line 2, the wording: "with the associated connected first semiconductor layer" has been replaced by: "with the first semiconductor layer".
5. In Claim 33, line 4, the wording "and associated with said plurality" has been replaced by "together with said plurality".
6. In Claim 35, line 4, the wording "input/output pin" has been replaced by "input pin or output pin".
7. In Claim 49, line 11, the wording: "layer having a top element making" has been replaced by ", wherein a top element makes".
8. In Claim 49, lines 24-25, the wording "conductor elements so that said horizontal stripe conductor elements are electrically connected to each other" has been replaced by: "conductor elements".
9. In Claim 49, line 29, the wording "second one of said first +-type regions" has been replaced by "second one of said first n+ - type regions".
10. In Claim 49, line 29, the wording: "on laterally opposite ends" has been replaced by "at laterally opposite ends".

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11. In Claim 50, line 2, the wording: "with the associated connected n+-type layer" has been replaced by: "with the n+-type semiconductor layer".

12. In Claim 50, line 4, the wording "and associated with the plurality" has been replaced by "together with the plurality".

13. In Claim 51, line 4, the wording "input/output pin" has been replaced by "input pin or output pin".

END PROPOSED EXAMINER'S AMENDMENT

### REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

**Claims 32-33, 35, 37-38, 47 and 49-54 are allowed** because, strictly within the context of the invention as otherwise defined by claims 32 and 49, the combination of emitter, collector and base regions over first, second, and third semiconductor layers over the semiconductor substrate as claimed, particularly, as arranged in electrical connection, said electrical connection being defined as the electrical connection by a conductor element with N horizontal stripe elements as recited in independent claims 32 and 49, have not been found in the prior art and have not been found obvious over the prior art including Chen et al as cited.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P. Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JPM  
January 3, 2007

Patent Examiner:

  
Johannes Mondt (Art Unit: 3663)